



*A Report Prepared as Background for  
the*

# *COSEE Decadal Review*

*conducted by*

*The National Science Foundation*

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*A look across the National COSEE Network that summarizes its enduring capabilities and capacities.*

### **B. COSEE: Origins, Evolution, and Future**

*Origins of COSEE. How COSEE has grown and matured over its first decade. A vision of how COSEE will meet the new challenges in the coming decade.*

#### Developments in Educational Reform Initiated COSEE

*How the need and opportunity for a national ocean sciences education network arose within the wave of geoscience education reform of the 1990s.*

#### Evolution of the National COSEE Network Over Its First Decade

*Expansion and evolution of COSEE through its first decade.*

#### A Vision of COSEE's Future

*Continuing growth and evolution of COSEE has positioned it to meet the challenges of the next decade.*

### **C. Portraits of the Network of COSEE Centers**

*Each Center has a unique character and history, specific capabilities, and its own interesting story to tell. In these Portraits, each Center tells its own story.*

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*One-page snapshots of a wide variety of significant successful programs throughout the National COSEE Network intended to provide a vision of COSEE's overall impact.*

### **E. Return on Investment**

*Discussions that describe the value of NSF's investment in the National COSEE Network over the last decade.*

#### COSEE Scientists Making An Impact

*A series of multimedia case studies showing the human face of ocean scientists who are achieving broader impacts of their research through COSEE partnerships.*

#### Assistance to Researchers in Achieving High-quality Broader Impacts

*COSEE has been proactive in establishing partnerships with researchers aimed at the development of high-quality broader impacts programs.*

#### **Broadening Participation in the Ocean Sciences**

*Throughout its first decade, COSEE has made it a high priority to increase the diversity of the ocean science community at both the Center and the Network levels.*

#### **Technology-enabled Collaboration and Communication**

*The COSEE Web Working Group supports productive collaboration and communication among organizations and individuals involved in web-based ocean sciences education.*

#### **Professional Development of Educators**

*Training of K-16 educators across the Network has led to significant progress in bringing ocean sciences into the education mainstream.*

#### **COSEE Interface With the Learning Research Community**

*COSEE regards the design of learning environments and research-based programs and curriculum as central to the mission of the Network*

#### **Learning Resources**

*COSEE Centers have developed and disseminated ocean sciences education learning resources that are built upon learning sciences research and linked to educator professional development.*

#### **International Opportunities**

*The need for greater ocean sciences education and outreach and increased ocean literacy does not stop at the shores of the United States.*

#### **Partnerships**

*Partnerships at the Network and Center levels with a wide variety of public and private organizations have allowed the National COSEE Network to leverage its impact.*

#### **Cross-Center Activities**

*The many COSEE cross-Center programs document the importance of the Network.*

### **F. Publications**

*A compilation of the wide variety of COSEE publications—published papers in refereed journals, published papers in non-refereed journals, books, reports, brochures, newsletters—across the Centers and the National COSEE Office.*

### **G. Presentations at Conference Sessions, Meetings, Workshops**

*COSEE has strived each year to have a presence at meetings of a broad spectrum of professional science and science education organizations.*

## **H. Governance**

*Governance of the National COSEE Network occurs internally through the National COSEE Council and externally through the National Advisory Committee.*

### **National COSEE Council**

*The Council—comprised of representatives from each Center and the National COSEE Office—is a deliberative assembly that leads the Network toward its goals.*

### **National Advisory Committee**

*The National Advisory Committee, having broad expertise in ocean sciences, industry, and education, provides guidance to the COSEE Council and NSF to improve the effectiveness of the National COSEE Network.*

## **I. Evaluation**

*Evaluation of Network accomplishments, cross-Center surveys, evolution of evaluation, and the future vision for COSEE's evaluation.*

### **Evidence of Success**

*Major accomplishments of the National COSEE Network based on evidence submitted by Centers and analyzed by the Evaluation Working Group (EWG)*

### **Scientist Engagement Survey**

*Surveys created by the EWG to assess engagement and broader impacts practices of ocean scientists involved with COSEE in 2009 and 2010*

### **Educator Engagement Survey**

*Survey created by the EWG to assess engagement and broader impacts practices of educators involved with COSEE in 2009.*

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